

➤ Advanced Cardiac Rehabilitation

➤ MCQ Questions: -

1) Coronary arteries filling during: -

- Systole
- Diastole ✓
- Ventricular contraction
- Ventricular ejection

2) One of the goals of cardiac rehabilitation: -

- Increase morbidity & disability
- Increase risk factors
- Increase activity related symptoms
- Improve functional capacity ✓

3) In normal sinus rhythm there is: -

- Irregular R-R interval
- 2 P wave for every QRS
- PR interval (3-5) boxes ✓
- PR interval more than 5 boxes

4) On ECG measures the time from start of atria depolarization to start of ventricular depolarization: -

- P wave
- QRS complex
- T wave
- PR interval ✓

5) From medical chart review we can found: -

- Smoking habits
- Self-care evaluation
- Blood lab reports ✓
- Activity of daily living

6) Extra heart sound in normal subjects up to ages of 20-30 represent by: -

- S1
- S2
- S3 ✓
- S4

7) The best method for measuring irregular heart rate in ECG: -

- Role of 10 ✓
- Measuring PR interval
- Role of 1500
- Role of 300

8) Rules during 6 minutes' walk testing include: -

- Walk with the patient
- Assist the patients
- Use only standardized phrases ✓
- Talk to anyone during walk

9) AV bundle of His is: -

- Terminal branches
- Cross the A-V ring ✓
- Located by the right atrium
- Secondary pacemaker of the heart

10) Systolic blood pressure can be produced during: -

- Ventricular relaxation
- Ventricular systole ✓
- Atrial systole
- Early diastole

11) Patients indicated in cardiac rehabilitation program are: -

- Moderate aortic stenosis
- Uncontrolled diabetes mellitus
- Chronic heart failure ✓
- Acute pericarditis

12) Indication for cardio pulmonary exercise testing of cardiac patients: -

- 3rd degree heart block
- Moderate aortic stenosis
- Hypertrophic cardiomyopathy
- Exercise/functional capacity ✓

13) General recommendations for resistance training in cardiac patients are: -

- 40 to 50 percent of one repetition maximum for upper body
- 40 to 50 percent of one repetition maximum for lower body ✓
- 60 to 70 percent of one repetition maximum for lower body
- 60 to 70 percent of one repetition maximum for upper body

14) Sinoatrial node located by: -

- Right atrium near SVC ✓
- Left atrium
- Right atrium near IVC
- Lower part of inter-atrial septum

15) Patients should not participate in a cardiac rehabilitation are: -

- Coronary artery disease
- Heart valve surgery
- VAD recipient
- Uncontrolled dysrhythmias ✓

16) One of the main cardiac rehabilitation staff members: -

- Neurologist
- Pharmacist
- Cardiac surgeon
- Cardiologist ✓

17) During atrial systole: -

- Semilunar valves are opened
- Pump blood to rest of the body
- Atrio/ventricular valves are opened ✓
- Ventricles fully contracted

18) Contra- Indication for cardio pulmonary exercise testing: -

- Unexplained dyspnea
- Pre-operative evaluation
- Unstable angina ✓
- Exercise induced asthma

19) The risk of sudden stop of vigorous exercises is: -

- Venous pooling in lower limbs ✓
- Increase venous return
- Increase blood flow to brain
- Hypertension

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20) In phase II (recovery phase) a low-level exercise test is performed to a level of: -

- 8 MET level
- 5 MET level ✓
- 80% Maximum HR
- 50% Maximum HR

21) During ventricular ejection of the heart there is: -

- Start of ventricles contraction
- Ventricles fully contracted ✓
- Filling of ventricles
- Ventricles are relaxed

22) S2 heart sound represented by: -

- Closure of A/V valves
- Closure of mitral valve
- Closure of semilunar valves ✓
- Summation gallop

23) Warm – up exercises should include the following: -

- Joint mobility exercises ✓
- Interval training exercises
- Resisted exercises
- Anaerobic exercises

24) In early diastole: -

- Ventricles fully contracted
- Ventricles are filling ✓
- Semilunar valves are opened
- Pump blood to rest of the body

25) As manometer of central venous pressure: -

- Internal jugular vein ✓
- External jugular vein
- Carotid artery
- Brachial artery

26) Mitral valve: -

- Open between right atrium to Rt ventricle
- Semilunar valve
- Composed of three components
- Composed of two leaflets ✓

27) Training heart rate (THR) in moderate intensity of aerobic exercises equals: -

- 55-65% of heart rate reserve + rest HR
- 65-75% of heart rate reserve + rest HR ✓
- 75-85% of heart rate reserve + rest HR
- 85-95% of heart rate reserve + rest HR

28) Moderate exercises by using maximum oxygen consumption (Vo2 max) equal: -

- 40%- 60% of Vo2 max ✓
- 30%- 40% of Vo2 max
- 60%- 80% of Vo2 max
- 70%- 90% of Vo2 max

29) After load represents: -

- Diastolic pressure
- Systolic pressure ✓
- Peripheral resistance
- End diastolic volume

30) 6-minutes' walk test is: -

- Lab test ✓
- Maximal testing
- Supra maximal testing
- Sub maximal testing

➤ True or False Questions: -

1) Patients with resting ST segment depression more than 3-4 mm should participate in cardiac rehabilitation

- True
- False ✓

2) In 1st degree AV block PR interval, more than 0.20 s

- True ✓
- False

3) Reason for immediate stop of 6-minute walk test is leg cramps

- True ✓
- False

4) End systolic volume is also referred to as preload

- True
- False ✓

5) Indication of CPET is unexplained shortness of breathing

- True ✓
- False

6) "Warm up" period before the six minutes' walk test should be performed

- True
- False ✓

7) Ejection fraction EF of <18% is probably going to exclude the patient from meaningful exercise

- True ✓
- False

8) Pharmacist one of the main cardiac rehabilitation staff members

- True
- False ✓

9) Murmurs are sounds occur during only systole

- True
- False ✓

10) Reason for immediate stop of 6-minute walk test is leg cramps

- True ✓
- False

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11) Terminal branches of right and left bundle called bundle of His

- True • False ✓

12) AV node is a back up pacemaker with intrinsic rate of 20-40bpm

- True ✓ • False

13) The percentage of the end- systolic volume that is pumped from the ventricles is called ejection fraction

- True • False ✓

14) The heart located specifically in the middle mediastinum

- True ✓ • False

15) Atrioventricular (AV) node located in the right atrium along the lower part of the inter-atrial septum

- True ✓ • False

16) During ventricular relaxation stage of cardiac cycle all valves are closed and filling of atria ##

- True ✓ • False

17) In cool down exercises an older patients takes shorter time to make changes of blood pressure

- True • False ✓

18) A full – level of exercise tolerance test (ETT) can be performed in preparation for phase II rehabilitation

- True • False ✓

19) In resistance training of cardiac patients exercises at intensity of 40 to 50 of one repetition maximum for lower body

- True ✓ • False

20) An increase in peripheral resistance tends to decrease arterial blood pressure

- True • False ✓

21) Warm-up exercises allow adequate time for patients' coronary arteries to dilate and increase the possibility of an angina attack

- True • False ✓

22) Left circumflex artery originate from right coronary artery

- True • False ✓

23) The amount of blood pumped per beat depends on the number of contractions per minute

- True • False ✓

24) End systolic volume is also referred to as preload

- True • False ✓

25) Tricuspid valve composed of three components (annulus, cusps, and commissures)

- True • False ✓